

C.9

MEMO TO: City Council

FROM: Rosemarie Ives, Mayor

DATE: January 18, 2005

**SUBJECT: APPROVAL OF SUPPLEMENTAL CONSULTANT AGREEMENT NO. 1 FOR
ENGINEERING SERVICES, UPPER IDYLWOOD CREEK REHABILITATION,
PROJECT NO. 100372 (02-NR-18)**

I. RECOMMENDED ACTION

Move to approve and authorize the Mayor to sign the Supplemental Consultant Agreement No. 1 with R.W. Beck, Inc., for final engineering design services for the Upper Idylwood Creek Rehabilitation, Project No. 02-NR-18, in an amount not to exceed \$164,000 including contingencies.

II. DEPARTMENT CONTACT PERSONS

David Rhodes, Director of Public Works	556-2705
Bill Campbell, City Engineer/Assistant Director of Public Works	556-2733
Jon Spangler, Natural Resources Division Manager	556-2823
Tom Barry, Engineering Section Manager	556-2870
Jerallyn Roetemeyer, Project Manager	556-2824

III. DESCRIPTION

Background

Increased flows in Idylwood Creek as a result of development in this basin has caused erosion of the channel bottom and banks. Erosion of the channel magnifies bank failure and carries more phosphorus laden sediment into Idylwood Creek and Lake Sammamish, degrading water quality and adversely impacting rearing and spawning habitat of migrating salmon and resident trout. In addition to the impacts on the natural environment, erosion is threatening yards and the decks of homes perched at the top of the slopes at several locations along the steep banks of the channel.

In 2002, the City constructed a \$3,300,000 bypass pipeline project to divert excessive storm flows thereby reducing erosion in the channel and the amount of sediment entering Lake

Sammamish. The bypass pipeline project included improvements for fish passage under West Lake Sammamish Parkway, and rehabilitation of 800 feet of stream channel through Idylwood Beach Park.

The purpose of the Upper Idylwood Creek Rehabilitation Project is to prevent future channel incision and undercutting of stream banks while protecting and improving habitat for fish and wildlife in the remaining 1,700 feet of Idylwood Creek upstream of West Lake Sammamish Parkway. The design approach is to stabilize the banks and streambed using a combination of bioengineering techniques, including installation of boulders, large woody debris, and log and rock weirs. Grading of the banks and new riparian vegetation will help to improve the stability of the side slopes. Habitat will be improved with the inclusion of in-stream structures to create pools and refuge areas and by removing a fish passage barrier. Riparian planting and removal of non-native, invasive species in the upland buffer will provide additional habitat for birds and insects.

R.W. Beck Inc. was previously selected to provide design studies, preliminary plans, and permitting coordination for channel improvements along approximately 1,700 feet of upper Idylwood Creek. The original agreement was executed for \$168,000. Supplemental Agreement No. 1 provides for final design plans, construction documents, coordination with permitting agencies, and community coordination and outreach.

The target reach is located south of West Lake Sammamish Parkway, between NE 36th Street and NE 28th Street (see attached vicinity map). This stream enhancement project is included in the approved 2001-07 Stormwater CIP, and is scheduled for construction in 2005 pending permit approval and easement acquisition. It is also an identified project funded from the stormwater water surcharge approved by Council in late 1999.

Twelve (12) easements have been granted to the City for this project. Staff are currently negotiating with property owners for the eleven (11) remaining easements that are needed. Permit applications are currently being reviewed by the U.S. Army Corps of Engineers and Washington State Department of Fish and Wildlife.

The attached Supplemental Consultant Agreement (Attachment B) is a standard City agreement. It will be reviewed by the City Attorney and Risk Manager prior to signature by the Mayor.

IV. **IMPACT**

- A. Service Delivery: This project will help to improve water quality and slope stability while enhancing habitat for fish and other wildlife.
- B. Fiscal:

Estimated Project Costs

Preliminary Design	\$ 168,000
Final Design (Supplemental Agreement No. 1)	164,000
Easements	10,000
City Administration	20,000
Construction	770,000
Construction Engineering	35,000
Monitoring/Maintenance	20,000
Contingencies	<u>35,000</u>
Total	\$1,122,000

Project Funding

Stormwater CIP	\$ 892,000
* Pollution Control Revolving Fund Loan	<u>330,000</u>
Total	\$1,122,000

* On August 7, 2001, Council authorized entering into a loan agreement with Washington State Department of Ecology for a Washington State Water Pollution Control Revolving Fund loan in the amount of \$330,000. This loan will be used to leverage the costs for construction.

V. ALTERNATIVES

Council could choose to not approve the agreement. However, this action would stop the project from advancing toward construction, and may jeopardize the opportunity to use the State Revolving Fund loan.

Council could direct staff to reduce the scope of work for the preliminary design. This alternative would affect the project goals or could result in additional costs at the time of construction.

VI. TIME CONSTRAINTS

Agreement Approval	January 2005
Complete Final Design	April 2005
Advertise for bid	May 2005
Begin Construction	Summer 2005

VII. LIST OF ATTACHMENTS

- A. Vicinity Map
- B. Supplemental Agreement No. 1

s/s

David Rhodes, Director of Public Works

12/31/04

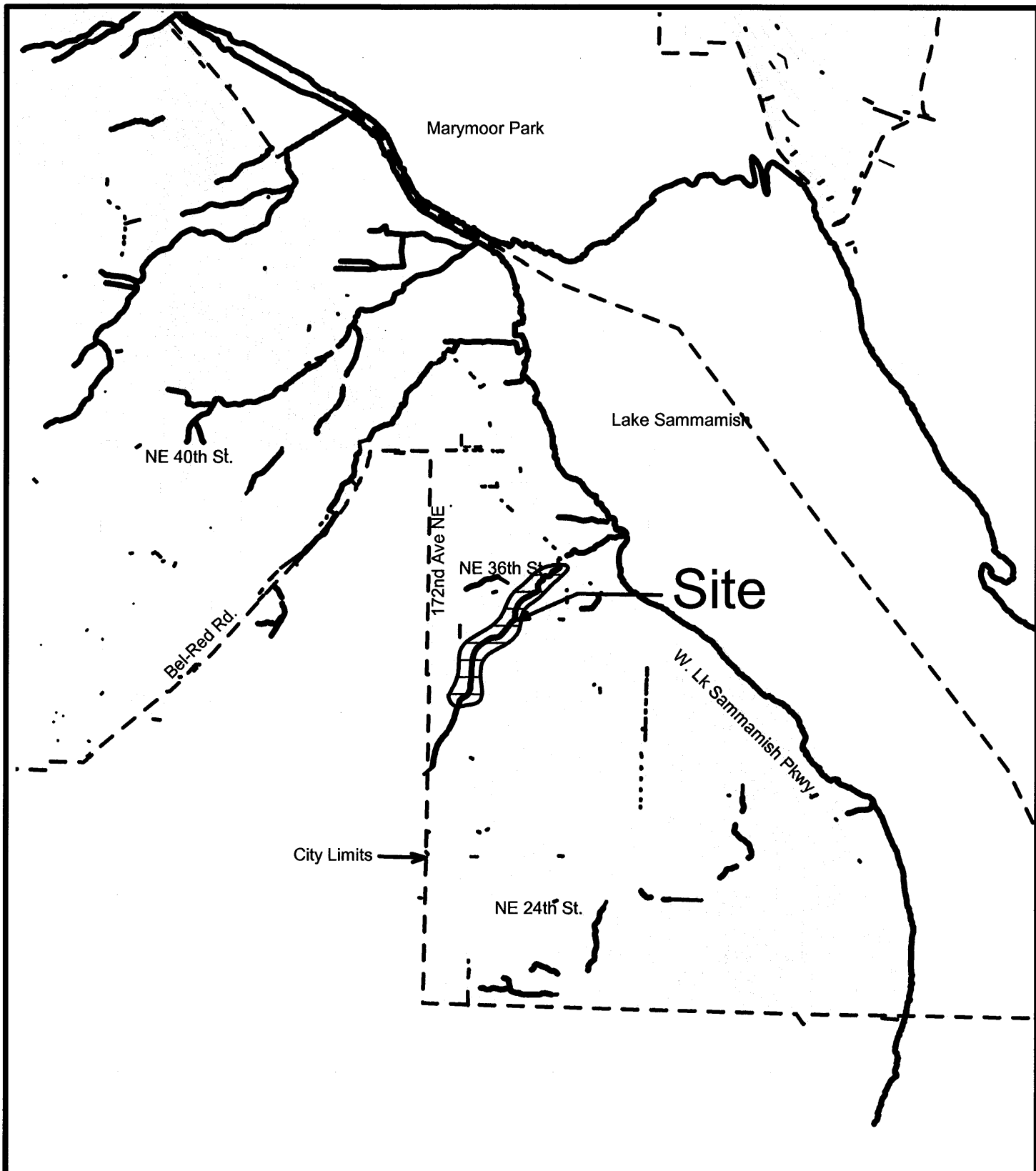
Date

Approved for Council Agenda **s/s**

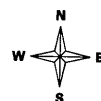
Rosemarie Ives, Mayor

1/5/05

Date



Attachment 1
Vicinity Map



ATTACHMENT B

Upper Idylwood Creek Rehabilitation Project No. 100372

SUPPLEMENTAL AGREEMENT NO. 1

This SUPPLEMENTAL AGREEMENT, made and entered into this ____ day of _____, 20____ between the City of Redmond, Washington, hereinafter called the CITY, and R.W. Beck, Inc., hereinafter called the CONSULTANT, amends an earlier Agreement (AGREEMENT) dated May 13, 2003.

WHEREAS the CITY requires additional engineering services related to the above mentioned project, and pursuant to Section XIV (Extra Work) of the AGREEMENT;

NOW THEREFORE, it is mutually agreed that the terms, stipulations, and conditions of the original AGREEMENT shall be binding upon the parties hereto except insofar as amended by this SUPPLEMENTAL AGREEMENT as follows:

ITEM NO. 1: SCOPE OF WORK

Section II, SCOPE OF WORK of the AGREEMENT shall be amended by the additional tasks summarized in Exhibit A-1 attached hereto.

ITEM NO. 2: PAYMENT

Section V, PAYMENT, shall be supplemented to compensate the CONSULTANT for the items of extra work provided in connection with the work described in Exhibit A-1 attached hereto.

A breakdown of the CONSULTANT'S cost proposal is attached hereto as Exhibit B- 1. By this reference the exhibit is made a part of this SUPPLEMENTAL AGREEMENT.

The "Maximum Amount Payable" involved on page 1 of the AGREEMENT is hereby modified to \$332,000.

Summarized below are the costs as listed in the original AGREEMENT and as modified by this SUPPLEMENTAL AGREEMENT.

Summary				
Description	Original Agreement	Supplement No. 1	Supplement No. ____	Total
Labor Cost	\$149,530	\$101,353		250,883
Reimbursables	\$3,487	\$45,464		48,951
Total	\$153,017	\$146,817		299,834
Contingency	\$14,983	\$17,183		32,166
Grand Total	\$168,000	\$164,000		332,000

ITEM NO. 3: COMPLETION DATE

The completion date on page 1 of the AGREEMENT shall be modified to August 31, 2005.

EXECUTION

IN WITNESS WHEREOF, the parties have executed this SUPPLEMENTAL AGREEMENT by having their representatives affix their signatures below.

R.W. Beck Inc.

CITY OF REDMOND

By _____

By _____
ROSEMARIE IVES, Mayor

(Title)

Attested:

By _____
City Clerk

Approved as to Form:

By _____
City Attorney

EXHIBIT A-1

Upper Idylwood Creek Rehabilitation Project – Final Design

Scope of Work

Project No. 100372

Project Overview and History

As Idylwood Creek enters Redmond from Bellevue, it flows through a backyard ravine, crosses under West Lake Sammamish Parkway, travels through Idylwood Beach Park, and discharges to Lake Sammamish. Redmond's Idylwood Creek Rehabilitation plan was divided into two parts: The Lower Idylwood Creek and Upper Idylwood Creek rehabilitation projects. The first part of the rehabilitation effort was the Lower Idylwood Creek project which was completed in the summer of 2002.

The Upper Idylwood Creek Rehabilitation project is the second part of the City of Redmond's plan in restoring Idylwood Creek. The project reach begins downstream of 172nd Avenue NE and ends 2,400 feet downstream near the intersection of NE 36th Street/177th Avenue NE.

During the first part of the rehabilitation effort, the Lower Idylwood Creek Rehabilitation project 1) installed a high flow bypass between 172nd Avenue NE and West Lake Sammamish Parkway, 2) restored the stream channel through Idylwood Park by creating pools and placing large woody debris and 3) replaced a section of the existing culverts with an open channel between NE 36th Street and West Lake Sammamish Parkway NE. The Upper Idylwood Creek will benefit from the peak flow reduction by the high flow bypass and employ similar techniques in creek rehabilitation to address project issues and objectives.

Project Issues and Objectives

Upper Idylwood Creek exhibits typical sign of stress of an urban stream. Development in the basin has increased the intensity and quantity of surface runoff that accelerated erosion of the soils underlying and adjoining the creek. This high intensity runoff has caused bank toe erosion, downcutting and channel widening and has also degraded aquatic habitat and transported an increased quantity of sediment downstream.

The goals of the Upper Idylwood Creek Project include the following:

- Prevent further erosion of the stream bank toe and downcutting of the stream bed to reduce stream widening and associated bank failures.
- Enhance in-stream habitat by creating self sustaining pools and a single thread channel during the summer low flow period
- Remove fish blockage to provide passage from lower Idylwood Creek.
- Remove invasive plant species and re-vegetate with native plants.

It is assumed that the project will be constructed during the summer of 2005.

Scope of Work to be Provided by Consultant

Preliminary design has been completed, and required Federal, State and Local permits have been applied for. This scope of work shall include providing design and engineering services, including labor, materials, equipment, supplies and incidentals necessary to complete the permit coordination and final design of the project. Services during construction and post-construction monitoring will be included in a subsequent supplemental agreement.

The following paragraphs describe the scope of work included in this contract.

Task 1. Project Administration & Management

Lead: R. W. Beck

Work under this task is the coordination and administration necessary during the project, including but not limited to, monthly progress reports and monthly invoices.

R. W. Beck and DEA will provide project administration and management for the project duration, estimated to be 5 months. The Consultant will prepare monthly invoices and progress reports. R. W. Beck will provide management and administration of the subcontractor.

Deliverables

- Monthly invoices and progress reports outlining the work completed during the previous month, project status, and issues to be resolved.

Task 2. Easement Assistance

Lead: DEA

This task includes assisting the City in responding to property owners' questions and concerns regarding proposed easements. It is assumed that this task will involve up to 8 hours of telephone conversation with the City and property owners.

Deliverables

- Documentation of conversations with property owners.

Task 3. Geotechnical Evaluation

Lead: Zipper Zeman

This task includes a geotechnical evaluation of up to four properties located at the top of the ravine. The evaluation involves determining the condition of the properties prior to construction to reduce the City's exposure to claims as a result of grading activity, construction-related vibration, or other aspects of construction in an area that has a history of slope instability.

Task 3.1: Field Coordination and Reconnaissance

The four residential properties in question are summarized below:

- Sundene property at 17404 N.E. 33rd Street
- Grady property at 3211 – 174th Avenue N.E
- Myers property at 3214 – 173rd Avenue N.E.
- Rowell property at 17321 N.E. 31st Court

For each of the residential properties, we propose to complete a visual reconnaissance on and above the ravine sideslopes, to observe the condition of structures on each property in order to identify evidence of instability or other site problems that could be exacerbated by construction activity in the channel. We have assumed that right-of-entry to the properties for purposes of completing the reconnaissance would be obtained the City of Redmond. We will coordinate with City staff and the property owners in order to develop a schedule for the site visits. We will need access inside the dwellings in order to document evidence of settlement.

A preconstruction survey of the specific features of the four properties such as building corners, decks, etc will be conducted with survey equipment to document the baseline conditions. No property line surveying will be needed.

Task 3.2: Geotechnical Review

Geotechnical engineers will review the preliminary design drawings and geotechnical reports prepared by others for the residential properties should the owners make such reports available.

Task 3.3: Geotechnical Memorandum Preparation

We will prepare a draft technical memorandum following completion of the field reconnaissance and the document review. The draft memorandum will include:

- A site sketch for each of the properties showing pertinent surface features, including features that may be indicative of instability, erosion, settlement, or foundation deficiencies;
- A description of surface conditions;
- Photographs of pertinent surface features that may be indicative of settlement, instability, or construction deficiencies;
- A discussion regarding evidence of apparent instability, erosion, settlement, or foundation deficiencies at each of the four sites;
- A discussion regarding methods of mitigating potential damage to the properties during construction of channel improvements, and;
- Recommendations for survey monitoring of specific site features as appropriate.

We will prepare a final technical memorandum following receipt of draft memorandum review comments.

Task 3.4: Review Channel Improvement Plans and Methodology

We will review the project plans and likely construction methodologies in order to identify conditions or procedures that have the potential to adversely affect adjacent residential properties.

We will prepare a memorandum following our plan review. The memorandum will present conclusions regarding potential construction impacts to the four subject residential properties.

Task 3.5: Meetings

We have included four hours in our budget for time dedicated to meetings prior to construction.

Deliverables

- Three double-sided copies of technical memorandum of preconstruction reconnaissance
- Design review memo
- Two meetings
- Baseline survey data for up to four properties.

Task 4. Design Report

Lead: R.W. Beck

The team will prepare a brief design report prior to beginning the 90% design work. The report will be a revision of the previous 6 page project report prepared for the BE and JARPA and will include the basis of design with respect to design flows, bankfull width, channel geometry, hydraulic calculations, boulder sizing, stream form, grades and other design criteria. The report is budgeted to be 8-10 pages long (printed double sided) and utilize the 50% design drawings. No new figures will be needed. City staff will review the draft report and provide comments to the team. The team will incorporate those comments and issue a final report.

Deliverables

- 3 copies of the draft design report
- 4 copies of the final design report

Task 5. Contract Document Preparation - 90 Percent Submittal

Lead: R. W Beck

Task 5.1: 90 Percent Submittal

The 90 percent submittal will be prepared including all design plan sheets, preliminary draft technical specifications and a preliminary cost estimate. They will include the city staff's review comments on 50 percent design and any comments or requirements from the permit agencies. Updated easements will be included. Additional problematic storm drainage outfalls in the lower portion of the project will be identified. All storm drain extensions will be based on the existing size. No hydraulic or hydrologic analysis will be needed. To design the weirs on the Kohl property, a small topographic survey will be conducted for about 50 feet upstream of the culvert entrance. The preliminary design drawings contained 14 sheets. The total estimated number of sheets for final design is 20. We have budgeted for the following design sheets

1. Title Sheet
2. Legends, Notes, Abbreviations and Project Control
3. Existing Conditions/topographic survey (2 sheets) 1"=50'
4. Access and staging plan 1"=100'
5. Stream rehabilitation plan (4 sheets) 1"=20'
6. Rehabilitation sections, and details
7. Rehabilitation sections, profile and details
8. Erosion and Sediment Control Plan
9. Erosion and Sediment Control Plan details
10. Storm Drainage Improvements Plan and Profiles
11. Storm Drainage Details
12. Landscaping plan (5 sheets) 1"=20'
13. Landscaping details

Some changes in the number and title of drawings are expected as the project progresses. A complete list of anticipated drawings will be included with the 90% submittal.

The 90% design will identify areas to be planted as a result of invasive weed removal or bioengineering requirements as well as areas with minimal vegetation selected by City staff. Individual planting areas will be labeled with plant species and quantities intended for that area. Plant schedules will list spacing information. The 90% landscaping design plans will include a typical planting plan layout for each of the three planting areas referenced in the plan set. Soil bags will also be located. The approximate location of existing wetlands will also be shown. It is anticipated that invasive species will be removed by others prior to construction. The ESC plan will meet DOE and city requirements.

The basis for the technical specifications (Divisions 2 through 9) will be the 2004 WSDOT Standard Specifications, the City of Redmond Standard Specifications and City of Redmond's modifications to the Standard Specifications. We will write special provisions of the technical specifications for items not included in the Standard

Specifications or the City of Redmond's modifications based on the specifications prepared for the lower Idylwood Creek project. Measurement and payment provisions will be included for each bid item. The special provisions will be consistent with Redmond specifications and will be similar to those prepared for the Lower Idylwood Creek project. Division 0 and 1 will be provided to consultant team for revision.

A construction cost estimate will be prepared corresponding to draft bid schedules and payment definitions. The Consultant shall provide internal quality assurance/quality control (QA/QC) reviews of all work products prior to submittal for City review. The City project manager will route the contract documents to the city reviewers and will develop a consolidated set of comments.

Deliverables

- 8 half size sets and 1 full size set of the 90 percent design plans, 8 copies of the specifications and cost estimates for review.
- Team meeting to review the design comments

Task 5.2: 100 Percent Submittal

Pre-Final Submittal: We will incorporate the City's comments from the 90% submittal and provide a bid-ready pre-final 100% design package including plans and contract documents. The City will provide written comments on the pre-final submittal to R. W. Beck.

Cost estimate: We will provide a cost estimate for the construction represented by the 100% complete drawings and specifications.

Deliverables

- One full-sized hard copy, 5 half-size drawings of the 100% plans
- 10 copies of the final bound specifications

Task 5.3 Final Submittal:

We will incorporate the City's comments and provide the final design package ready for bidding. All sheets will be reviewed, stamped, and signed by licensed engineers or landscape architects. Digital files will be submitted at the end of the project.

Deliverables

- One full-sized hard copy, and 40 half-sized copies of plans for bidding
- 40 bound copies of the specifications for bidding
- Engineer's estimate

Task 6. Monitoring Plan

Lead: Taylor

This task involves the preparation of a monitoring plan that will be used to evaluate 1) construction requirements (warranty), 2) permit compliance, and 3) the effectiveness of the rehabilitation. The Monitoring Plan will include monitoring methods, performance measures/standards, contingency measures and a monitoring schedule for bioengineered components, habitat structures, fish, vegetation and overall habitat conditions. Baseline and on-going monitoring will be done in a later work phase. After input from the City and permitting agencies, a final plan will be completed.

Deliverables:

- 3 double-sided copies of the draft monitoring plan
- 3 double-sided copies of the final monitoring plan
- 1 electronic copy of the final monitoring plan in PDF or WORD format.

Task 7. Public Involvement

Lead: R. W. Beck

R. W. Beck will attend an open house to present the project to local property owners. The Consultants will prepare graphics of the proposed improvements consisting of highlighted design plans (R. W. Beck) and color renderings of two typical sections (DEA). A short PowerPoint presentation may be used to illustrate construction techniques, utilizing the previous presentation as much as possible. A summary of public comments received will be prepared by R.W. Beck. The meetings will be organized and facilitated by the City. No preparation meetings will be needed.

Deliverables

- Highlighted design plans and two color cross sections
- PowerPoint presentation with 5 new slides
- Attendance at Open House

Task 8. Permitting Coordination

Lead: DEA

The SEPA checklist, Corps 404, JARPA and HPA applications have been completed and submitted during the previous work phase. DEA will assist the City of Redmond with coordinating permitting issues with the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, NOAA Fisheries, Muckleshoot Indian Tribe and Washington State Department of Fish and Wildlife.

Task 8.1: Attend up to two (2) informal meetings with the permit agencies to provide input into permit issues.

Task 8.2: Respond to agency comments and provide additional project information as necessary to satisfy the requests of permitting agencies concerning project elements.

Task 8.3: Periodically contact the permitting agencies to monitor the progress of permit approval and address Agency questions.

Assumptions.

- Due to the nature of the permitting process, the actual time needed cannot be determined so a budget allowance has been included. Adjustments will be made when significant difference in estimated hours is expected.
- City staff will complete the SEPA process.

Deliverables

- Documentation of correspondence with permit agencies
- Meeting notes from meetings with permitting agencies.

Task 9 Bidding Assistance

Lead: R. W. Beck

We will assist the City, as requested by the City, during the advertising and bidding process including responding to contractor's questions, preparing addenda, attending a pre-bid conference, evaluation of bids, and recommendation for award of contract. It is assumed that the addendum will only involve minor revision to the drawings and specification, and the level of effort for this addendum is assumed not to exceed 24 hours.

Project Schedule

January 18, 2005	City Council approval
January 25 2005	Notice to Proceed
February 4, 2005	Submit draft Design Report
February 11, 2005	City review comments on draft Design Report returned
February 18, 2005	Submit Final Design Report to City
March 11, 2005	Submit 90% design
March 25, 2005	City review comments on 90% design returned
April 8, 2005	Submit pre-final contract documents
April 22, 2005	City review comments on pre-final contract documents returned
May 3, 2005	Submit bid-ready 100% contract documents to City
May 10, 2005	Advertise for bids
Summer 2005	Construction

Additional Work

Construction services may be provided under the terms of additional work as specifically requested and authorized by written order. Potential work includes:

- Submittal reviews
- Requests for Information from the contractor.

- On-site observation/field engineering
- Monitoring of home foundations that might be affected by construction
- Change order preparation and review
- Preparation of record drawings
- Pre and post construction field monitoring.
- Removal of vertebrate species before dewatering of the stream channel
- Baseline monitoring of existing habitat conditions for evaluation of rehabilitation effectiveness

Graphic Standards

All plans will be prepared in accordance with standard practices of the City. Plans shall be prepared as follows:

- The plans will be completed in AutoCAD Version 2004 or newer.
- All drawings will be consistent with R. W. Beck and City of Redmond CAD standards.
- Full-size plan sheets will be 22" x 34" and half size will be 11" x 17" on standard City of Redmond title and border.
- Plan sheets utilizing topographic base mapping will utilize reference files so that the base map will remain as a single computer file. Each drawing will be a separate computer file with the base reference file as a separate CAD file. Hard copy final products will be signed drawings on bond. Mylars of the final drawings are no longer needed.

Assumptions

- Idylwood Creek is a dynamic system. The proposed design will attempt to minimize bed and bank erosion to the extent possible considering the desire to also improve aquatic habitat. The City recognizes that to completely eliminate any erosion is not beneficial to the system and would require large scale use of rock in the channel. Large scale use of rock would significantly impact the ecological functions of the stream and would not be accepted by resource agencies.
- Project features will not need to be redesigned if all critical easements cannot be obtained.
- The landscaping design will be completed assuming installation will be done by a contractor rather than volunteers.
- Permitting assumes a Corps Nationwide Permit will be issued rather than an Individual permit. At this time, the Corps believes a nationwide permit is required. Additional budget and schedule may be required if individual permit is required.

Items and Services to be furnished by the City of Redmond

- The City will provide written review comments for the 90% and prefinal contract document to the consultant in a timely manner
- The City will provide electronic and hard copies of City's standard specifications that are required in the contract documents.
- The City will arrange for access to properties for site studies and design work.
- City owned utility locates will be provided by the Maintenance and Operations Center, if needed.
- The City will submit the SEPA checklist and JARPA to the WSDFW and WSDOE.
- The City will apply for the Clearing and Grading permit.
- The City will distribute the bid package and any addenda to prospective bidders and advertise and receive bids.
- The CITY will negotiate, and obtain the required easements and property access agreements needed to complete the project. The CITY will keep the CONSULTANT informed about how negotiations affect construction limits and staging areas.
- The City will provide the City-prepared portion of the Contract Documents to the Consultant for the 90% design submittal

Contingency

A contingency has been established for this work assignment as a means for the City to address additional project requirements or contingencies that may occur during the term of this work. R.W. Beck will promptly communicate all project requirements considered to be outside the Scope of Work, as established above, to the designated City Project Manager. RW Beck must receive written approval to use portions of the contingency.

Exhibit B-1

Consultant Fee Determination

Project Name: Upper Idylwood Creek Rehabilitation Project
Project Number: 100372
Consultant: R. W. Beck

NEGOTIATED HOURLY RATES

<u>Classification</u>	<u>Hours</u>	<u>Rate</u>	<u>Cost</u>
Senior Project Manager	272	\$170	\$46,240
Project Manager	17	\$155	2,635
Project Engineer		\$135	
Senior Engineer	278	\$109	30,302
Engineer		\$87	
Junior Engineer		\$80	
CAD	193	\$78	15,054
Financial Assistant	19	\$72	1,368
Graphics	8	\$81	648
Project Assistant	74	\$69	5,106
Clerical		\$47	
Subtotal:	861		\$101,353

REIMBURSABLES

Mileage and Travel	\$225
Reproduction (copies, plots, etc.)	1545
Computer services and software use	3,350
Miscellaneous	275
Subtotal:	\$5,395

SUBCONSULTANT COSTS

Taylor Associates, Inc. (Monitoring Plan, Biological Review)	\$5,427
Zipper Zeman (Geotechnical Evaluation)	\$9,466
David Evans & Assoc, Inc. (Surveying, Easements, Permitting)	25,176
Subtotal:	\$40,069

TOTAL \$146,817

CONTINGENCY 17,183

GRAND TOTAL \$164,000